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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,539	06/24/2003	Russell Mark Richman	6	1677

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EXAMINER	
NGUYEN, LEE	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,539	RICHMAN, RUSSELL MARK	
	Examiner	Art Unit	
	LEE NGUYEN	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 14-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10, 14-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the communication filed 7/17/2006. Claims 11-13 have been canceled. Claims 1-12, 14-21 remain in prosecution.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 5-6, 10 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metze (U.S. Patent 5,754,948).

Regarding claims 1, 14, Metze teaches a method for wireless communication among first and second integrated circuit devices 16 within an enclosure 12 (fig. 1), said method comprising the steps of: transmitting a signal using a first antenna associated with said first integrated circuit device (see antenna in fig. 2); and receiving said signal using a second antenna associated with said second integrated circuit device (see antenna, fig. 2) within said enclosure 12. Metze fails to teach that said signal is transmitted in accordance with an ultra wide band wireless standard. However, Metze also suggests that the frequencies are used and fall within the standard IEEE definition

(col. 5, lines 28-32) and that wide bandwidth MIMICs operating at well above 100 GHz are now commercially available (col. 3, lines 62-64). Therefore, it is obvious that the system of Metze can also apply to 802.11 wireless standard, or an ultra wide band wireless standard. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include different short-range standards into the system of Metze in order to enjoy frequency channels assigned by the FCC.

Regarding claims 2, 20, Metze teaches the method of claim 1, wherein said first and second antennas are incorporated in said first and second integrated circuit devices (see fig. 2).

Regarding claims 5, 15, 18 Metze teaches the method of claim 1, wherein said signal comprises one or more channels (col. 5, lines 15-24).

Regarding claims 10, 16, 19, Metze teaches the method of claim 1, wherein said enclosure is a housing of a self-contained device (fig. 1, numeral 12).

Regarding claim 17, Metze teaches an integrated circuit device 16 within an enclosure 12 (fig. 1), comprising: at least one circuit (18, fig. 2); and an antenna (see antenna, fig. 2) for transmitting a signal to a second integrated circuit device 16 within said enclosure 12 (fig. 1).

Regarding claim 6, Metze teaches the method of claim 1. Metze fails to teach that one or more signals are transmitted by said first antenna using one or more associated sub-carrier frequencies. However, as illustrated in the rejection of dependent claim 5, the signal comprises one or more channels; therefore, it could obviously comprises one or more sub-carrier frequencies because channels or frequencies can also be sub-carrier frequencies. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include sub-carrier frequencies into the system of Metze in order to allow more IC to be involved in the communication system.

Claims 3, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metze in view of Cheung et al (U.S. Patent 6,577,157).

Regarding claims 3, 21, Metze teaches the method of claim 2. However, he fails to teach that at least one of said first and second antennas is a pin on said first or second integrated circuit device. In an analogous art, Cheung teaches that the pins of an IC circuit can be used to provide different functions (col. 1, lines 56-59), some of which can also be antennas if desired (col. 5, lines 44-49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Cheung to the devices of Metze in order to reduce the space of the IC, thereby reducing the size of the enclosure.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Metze in view of Nozawa et al. (U.S. Patent 6,942,157).

Regarding claim 4, Metze teaches the method of claim 2. However, he fails to teach that at least one of said first and second antennas is printed on said first or second integrated circuit device. However, Nozawa teaches that antenna can be conductor film printed on the IC (figs. 8-9, col. 8, lines 1-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Nozawa to the devices of Metze in order to reduce the space of the IC, thereby reducing the size of the enclosure.

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metze in view of Ghaem (U.S. Patent 5,335,361).

Regarding claims 7-9, Metze teaches the method of claim 1. Metze fails to teach that said signal is time-division multiplexed, or said signal is frequency-division multiplexed, said signal is spatially multiplexed. In the same field of Metze, Ghaem teaches that dependent on the choice, time division or frequency division multiplexing could be used by the ICs (col. 4, line 53 through col. 5, line 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the multiplexing teaching of Ghaem into the system of Metze in order to enable simultaneous communication without interference.

Response to Arguments

Applicant's arguments filed 7/17/2006 have been fully considered but they are not persuasive.

Metze is clearly limited to transmission and reception over discrete carrier frequencies. See, for example, the discussion at col. 4, lines 48-53, where it is noted that if the MIMIC 16 labeled T1/R1 (in FIG. 1) transmits at (discrete) frequency f2 and receives at (discrete) frequency fl and the MIMIC 16 labeled T2/R2 transmits at (discrete) frequency fl and receives at (discrete) frequency f2, data can be readily transmitted between the CPUs 14 labeled A1 and A2. Ultra wide band communications, on the other hand, is a wideband wireless technology, rather than a narrowband technology, that depends on encoding the information on a number of narrow carrier frequencies. Using multiple frequency bands, the transmitted information is effectively spread across a wide range of frequencies. See, e.g., http ://en.wikipedia.org/wiki/Ultra_wideband.

Thus, Metze the use of discrete carrier frequencies, such as fl and f2, for transmission and reception between two integrated circuits teaches away from the present invention, as claimed by each independent claim, as amended.

In response, first the suggestion of the http://en.wikipedia.org/wiki/Ultra_wideband is neither in the claims, nor in the specification. Second, Metze suggests the well-known

use of high bandwidth in column 3, lines 59-65 and column 5, lines 24-32 and column 5, lines 42-45.

In response to applicant's argument that using multiple frequency bands, the transmitted information is effectively spread across a wide range of frequencies, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE NGUYEN whose telephone number is 571-272-7854. The examiner can normally be reached on FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ANDERSON D. MATTHEW can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LEE NGUYEN
PRIMARY EXAMINER